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February 11, 1999

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
Office of the Secretary
445 Twelfth Street, SW Room TWB-204
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: Ex parte - CC Docket No. 96-98
In the Matter of the Local Competition
Provisions in the Telecommunications Act of 1996

Dear Ms. Salas:

The enclosed is being filed for inclusion in the record of this proceeding.
Copies are also being provided to the individuals listed below.

Two copies of this Notice are being submitted to the Secretary of the
Commission in accordance with Section 1.1206(b)(1) of the Commission's Rules.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Al Lewis".

Enclosures

cc: Mr. C. Wright
Mr. L. Strickling
Mr. R. Atkinson
Ms. C. Matthey
Mr. R. Pepper
Mr. D. Stockdale
Mr. T. Power
Mr. P. Gallant
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Remand Proceeding on Rule 319

Introduction

In AT&T Corp. v. Iowa Utilities Board, the Supreme Court upheld all but one of the local competition rules that had been challenged. Critically, the Court restored the Commission's broad jurisdiction to adopt rules interpreting and implementing the local competition provisions of the Communications Act, and it affirmed the reasonableness of virtually all of the Commission's unbundling rules.

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At the same time, however, the Court vacated Rule 51.319 ("Rule 319") and remanded that aspect of the First Report and Order for further proceedings in light of the Court's decision. Rule 319 identified the network elements that incumbent LECs must make available to new entrants, based in part on the Commission's prior application of the factors set forth in Section 251(d)(2). The Commission must now develop and apply a new Section 251(d)(2) test that is consistent with the Court's decision, and promulgate a new rule identifying the network elements that must be made available under Section 251(c)(3).

The Supreme Court held that the Commission's prior interpretation of the Section 251(d)(2) factors was extreme -- not in the results it ultimately reached but in the

standard it applied. The Supreme Court found that this interpretation -- under which the Commission inquired whether the functionality performed by a proposed network element somehow could be obtained from a different element in the same LEC network at no greater cost -- virtually guaranteed that any requested element would satisfy Section 251(d)(2). The Court's holding, therefore, was exceptionally narrow and requires only that the Commission adopt a standard that contains a limiting principle that is more closely grounded in the statute and its purposes. In responding to the remand, therefore, the Commission should be careful to distinguish between the two specific aspects of its prior analysis that the Court found inadequate and the many other portions of its analysis that the Court did not question and that remain valid and fully applicable. Incumbent LECs now appear to be seeking to undo some of those latter portions of the Commission's analysis -- holdings that they were either unsuccessful in challenging or that they never challenged at all. Accordingly, it is helpful to review what the Court did not do before addressing what it did.

I. Aspects of the Commission's Analysis that the Supreme Court Did Not Disturb

The vast majority of the Commission's prior analysis was not called into question by the Court's decision. We

summarize five of the most significant such aspects of that analysis.

First and most fundamentally, the Commission's First Report and Order adopted a categorical approach to identifying network elements. The Commission required that the elements listed in Rule 319 be made available on the same basis in all geographic areas, to all new entrants, and for all types of customers. See First Report and Order, ¶ 242 (explaining that "[n]ational requirements for unbundled elements" are necessary). The incumbents argued before the Supreme Court that more individualized decisions should be made under Section 251(d)(2).¹ Nevertheless, the Supreme Court did not adopt that argument or in any way question the

¹ Indeed, at oral argument, the incumbent LECs specifically (and unsuccessfully) argued for a market-by-market, carrier-by-carrier approach:

MR. BARR: We are dealing -- first, I would bear in mind that we're dealing with local markets, and I -- and the FCC promulgates -- has the tools to address local markets. They promulgate rules every day of the week that make distinctions between concentrated urban markets and dispersed rural markets. Every day of the week. Moreover, they have the tool of arbitration which gets you down to a carrier-by-carrier level. They could easily say in New York where there are dozens of switches, in New York where there are companies that have built from soup to nuts entire networks -- there are people building it today without taking any of our pieces. They could say that in certain markets, certain kinds of businesses don't need certain things.

categorical approach taken by the Commission. To the contrary, it signaled its expectation that whichever network elements are identified by the Commission on remand would be made available "unconditionally," Slip Op. at 25, and specifically noted that some of the Commission's analysis -- all of which was categorical in nature -- could support the "higher standard" the Court was requiring. Id., p. 24.

Moreover, such a categorical approach is clearly correct, both as a matter of law and policy. Section 251(d)(2) expressly designates the Commission as the agency that is responsible for "determining what network elements should be made available for purposes of subsection (c)(3)." If Congress had intended the core list of minimum network elements to vary by region and be based on local conditions, it would instead have provided for State Commissions to make such decisions in the first instance, subject to more general FCC rules. Indeed, Congress took this exact path in dealing with several other matters, such as resale restrictions (see Section 251(c)(4)(B)) and rural exemptions (see Section 251(f)). Congress' decision not to apply such a paradigm to Sections 251(c)(3) and 251(d)(2) strongly supports the Commission's conclusion that the minimum list of unbundled elements should be developed on a uniform nationwide basis.

Tr. at 67.

The statute likewise supports -- indeed, compels -- the Commission's prior decision not to distinguish between CLECs in determining which network elements must be made available. In a holding that has never been challenged, the Commission concluded that Section 251(c)(3)'s requirement of "nondiscriminatory access" mandates, among other things, that "the quality of an unbundled network element that an incumbent LEC provides, as well as the access provided to that element, must be equal between all carriers requesting access to that element." First Report and Order, ¶ 312 (emphasis added). Any approach to identifying network elements that varied by carrier would thus violate the nondiscrimination requirement of Section 251(c)(3).²

Such an approach would also be precluded by Section 252(i), the so-called "pick and choose" provision, which applies the nondiscrimination obligation by requiring an incumbent LEC to make available "any . . . network element" provided under an interconnection agreement with one CLEC "to any other requesting telecommunications carrier upon the same terms and conditions." The Supreme Court confirmed that the Commission properly construed this requirement to

² Such a holding would also violate Section 251(c)(3)'s requirement that network elements be made available to "any" requesting telecommunications carrier. See Slip Op. at 25 (relying in part on the use of "any" in Section 251(c)(3) in upholding the Commission's refusal to distinguish between CLECs that do or do not own facilities in requiring incumbents to provide access to network elements).

apply to individual network elements provided under an agreement and not merely, as the Eighth Circuit had held, to agreements taken as a whole. Slip Op. at 28-29. If the Commission held that an incumbent LEC must make a network element available to one CLEC but could simultaneously deny it to another CLEC, such a ruling would squarely violate Section 252(i).

A categorical approach to the definition of network elements is also necessary to achieve the statutory objective of "rapid" development of local competition. Any other approach would enable incumbents to engage in scores of piecemeal challenges, locality by locality, claiming that access to a particular network element is not justified based on claimed local market conditions -- and then, even upon losing, immediately initiate new challenges on the ground that the market had further developed during the course of the prior litigation. Thus, the Commission was on solid ground in concluding that categorical rules are essential to "reduce the likelihood of litigation regarding the requirements of Section 251(c)(3) and the costs associated with such litigation" and "provide financial markets with greater certainty in assessing new entrants' business plans, thus enhancing the ability of new entrants, including small entities, to raise capital." First Report and Order, ¶ 242.

Second, the First Report and Order, in identifying loops, switching, transport, signaling, and operator services as network elements, relied not only on its consideration of the factors set forth in Section 251(d)(2), but also on the fact that those specific items are part of the Section 271 "competitive checklist."³ It is difficult to conceive of a rationale under which Congress could have determined that a particular element was sufficiently critical to opening local markets that it must be included as part of the checklist, but not important enough to satisfy the standards of Section 251(d)(2). Nothing in the Court's opinion disputed the obvious relevance of this consideration to the Commission's analysis.

Third, the Court did not call into question the underlying rationale for the statutory unbundling requirement: the need to require incumbents to share their enormous "economies of density, connectivity, and scale" in order to make meaningful competition possible. First Report and Order, ¶ 11. As the Commission held, Congress recognized that these LEC advantages had created "the most significant economic impediments to efficient entry into the monopolized local market," and were viewed as "creating a

³See, e.g., First Report and Order, ¶ 377 (loops); id., ¶ 410 (switching); id., ¶ 439 (transport); id., ¶ 479 (signaling and databases); id., ¶ 534 (operator services and directory assistance).

natural monopoly." Id. Therefore, in applying Section 251(d)(2) in a manner "rationally related to the goals of the Act," Slip Op. at 21, the Commission must advance those goals by ensuring that new entrants are able to enjoy comparable economies to the incumbents, so that they have the opportunity to compete effectively.

Relatedly, there is no basis in the Supreme Court's opinion, or in the statute, for resurrecting the broad contrary arguments the incumbent LECs have continually raised against the concept of unbundled access. The Eighth Circuit properly rejected the incumbents' "vague[]" claims that unbundling should be restricted on the basis that it discouraged facilities-based competition, holding that the statutory goal was "to expedite the introduction of pervasive competition into the local telecommunications industry." Iowa Util.Bd. v. FCC, 120 F.3d 753, 815-816 (8th Cir. 1997). The Supreme Court did not disapprove that holding; indeed, it acknowledged that the Act granted broad rights to use incumbents' capabilities. Slip Op. at 29. Accordingly, any claims that the Commission should deny access to elements that satisfy the "necessary" and "impair" test on the generic grounds that unbundling is generally counterproductive or regulation is too costly should be disregarded for what they are: improper collateral attacks on the policy choices made by Congress.

Fourth, the Court rejected several ILEC claims that particular network elements identified by the Commission fall outside the statutory definition of Section 3(29). The incumbents' comments filed in Docket 96-98 generally agreed that loops, switching, interoffice transport, and signaling systems were network elements under Section 3(29), and that those elements satisfied the requirements of Section 251(d)(2) and should be required to be made available.⁴ However, incumbents challenged the Commission's designation of OSS, operator services and directory assistance, and vertical features as unbundled elements (or, in the case of vertical features, as part of another unbundled element), claiming such actions were beyond the Commission's authority. The Supreme Court summarily rejected each of those challenges. Slip Op. at 19-20. Consequently, there can no longer be any question that the Commission, after properly considering the factors set forth in Section 251(d)(2), has the authority to require that all of the elements it defined in Rule 319 (as well as any other

⁴ See, e.g., Ameritech Comments, pp. 34-51; Bell Atlantic Comments, pp. 22-32; NYNEX Comments, pp. 61-64; Pacific Telesis Group Comments, pp. 40-62; USTA Comments, pp. 28-36; US WEST Comments, pp. 47-48. While there were some substantial disagreements among the commenting parties over aspects of those elements -- such as sub-loop unbundling, or whether access to switching should include vertical features -- there was no significant disagreement over whether these four elements should be made available in some form.

elements that meet the statutory criteria) must be made available under Section 251(c)(3).

Fifth, the Court did not call into question the Commission's definition and application of the term "proprietary" in Section 251(d)(2). The Commission treated as "proprietary" only those elements "with proprietary protocols or . . . containing proprietary information." First Report and Order, ¶ 282. It found very few proprietary concerns with regard to the seven network elements it identified.⁵ No party has ever challenged any of these conclusions. This means that, assuming arguendo that non-proprietary elements are subject to the Section 251(d)(2) standards at all, only the "impair" standard -- and not the "necessary" standard -- will apply in almost all instances.⁶

⁵ Specifically, the Commission found no proprietary concerns with respect to the loop (First Report and Order, ¶ 388), the network interface device (id., ¶ 393), tandem switching (id., ¶ 425), transport (id., ¶ 446), signaling protocols for SS7 networks (id., ¶ 481), call-related databases (id., ¶ 490), and operator services and directory assistance (id., ¶ 539). It found some proprietary concerns with respect to the service creation environment and the service management system (id., ¶ 497), which it resolved in a manner conforming to the CLECs' stated needs.

⁶ A facial reading of Section 251(d)(2) indicates that this entire subsection was intended to apply only to proprietary elements. This paper, assumes however, solely for the purposes of argument, that the "impair" test applies to non-proprietary elements.

II. Aspects of the Commission's Analysis that Require Remand

In contrast, the Supreme Court found fault with only two specific aspects of the Commission's reasoning. First, the Commission had held that, in applying the "necessary" and "impair" standards, it would look only at whether a particular network element's functionality could be duplicated by another element within the incumbent LEC's network. See First Report and Order, ¶ 283. The Court held that the Commission must also look outside the network for possible substitutes.⁷

Second, the Commission (id., ¶ 285) held that the "impair" standard would be satisfied if CLECs could show that their costs would increase, or their quality of service would decrease, in any amount if they were forced to obtain a functionality outside the incumbent LEC's network (and that access was "necessary" if the CLECs would be "significantly impaired" in that sense, see id., ¶ 282). The Court held that this was erroneous because the Commission's construction of the statutory standard "assum[ed] that any increase in cost (or decrease in quality) imposed by denial of a network element renders access to that element 'necessary' and causes the failure to

⁷ Slip Op. at 22 ("[t]he Commission cannot, consistent with the statute, blind itself to the availability of elements outside the incumbent's network").

provide that element to 'impair' the entrant's ability to furnish its desired services." Slip Op. at 22 (emphasis in original). The Court noted that there could be situations in which CLECs who were forced to obtain substitutes for an ILEC unbundled network would face increased costs that might not reduce their ability to provide service, because they would only experience slightly diminished profits. Id., pp. 22-23.

Taken together, these two errors led the Court to conclude that the Commission had taken an extreme position: a proposed element would be deemed to fail the "impair" standard only if its functionality were duplicated by some different facility within the LECs' network, and at the same or lower cost. Thus, the Court's narrow holding was that the Commission had failed to provide "some limiting standard, rationally related to the goals of the Act." Id., p. 21 (emphasis in original). The Commission will satisfy the requirements of the remand if it identifies and applies a rational limiting standard -- and such a limiting standard is readily discernible from the Court's analysis and the language of Section 251(d)(2) on which the Court relied.

III. Import of the Court's Decision

The lesson of the Court's decision is that the Commission may not conclude that the mere presence of some cost or quality difference between the use of a network

element and the use of a substitute functionality from an alternative source satisfies either of the Section 251(d)(2) tests. Instead, it must inquire whether such differences -- or any other difference between the network element and the substitute -- effectively reduces CLECs' abilities to provide the services they want to offer.⁸ If CLECs could fully internalize the added burden imposed by such a difference so that their ability to provide the service remains unaffected, then the Section 251(d)(2) standards are not met.⁹ By contrast, if CLECs' ability to provide the proposed service would be adversely affected if they were required to use a proposed substitute, the Court's opinion confirms that the standard has been met.

Some incumbent LECs have extravagantly misread the Court's decision. Bell Atlantic, for example, has, baldly asserted that the Supreme Court's decision means that "elements that are available from other sources . . . do not have to be provided as unbundled 'network elements' under

⁸ See Slip Op. at 22 ("[a]n entrant whose anticipated annual profits from the proposed service are reduced from 100% of investment to 99% of investment has perhaps been 'impaired' in its ability to amass earnings, but has not ipso facto been 'impair[ed]' . . . in its ability to provide the services it seeks to offer").

⁹ Thus, the Court addressed the example of a ladder that might be needed to change a light bulb. If, with a slightly shorter ladder, the person changing the bulb can still do the same job -- but will merely have to stretch his or her arm further -- the ability to change the bulb is not impaired.

the Act."¹⁰ This is patently wrong. The question of whether there is an alternative source of supply merely begins the inquiry under Section 251(d)(2) -- unless no practical alternative sources exist, in which case the inquiry must end because then the statutory standards are plainly met. If an alternative is available, the Commission must then examine whether forcing CLECs to use the alternative will adversely affect their ability to provide the services they seek to offer.

Thus, for example, if a cost difference (or any other difference) renders the provision of any service uneconomic, such that it is likely that entry would not occur or a service would not be provided -- taking into account not only the CLECs' costs of purchasing the functionality, but their costs of capital and working capital requirements, as well as their other efficient costs of providing service -- then the standard is met. Similarly, the standard is met if lack of access to a requested network element would produce a CLEC service of materially lower quality, would lengthen by a non-trivial amount the time it takes to bring the service to market, or would limit the scope or coverage of

¹⁰ See Statement of Bell Atlantic - Maryland, Inc., Case No. 8808, In the Matter of the Commission's Initiation of a Global Telecommunications Negotiation, pp. 1-2, n.1 (filed Jan. 29, 1999); see also Ameritech-Michigan's Motion to Vacate Judgment and Brief in Support, Case No. 5:98-CV-20, United States District Court for the Western District of Michigan (filed Feb. 3, 1999).

the CLEC service. Other examples of ways in which a difference might be service-affecting are discussed below. In all events, the fundamental point is straightforward. In all these examples, CLECs' abilities to provide their chosen services would be "impaired" because the service itself, or the CLECs' ability to provide it (and not merely the CLECs' profits), would be diminished if incumbents were permitted to deny them access to the requested element.

IV. Recommended Limiting Principles

We set forth below a set of rules that the Commission can apply that are consistent with the Supreme Court's mandate.¹¹ Critically, as shown below, several of these principles, and the analysis supporting them, have already been recognized in the Commission's earlier decisions.

A proprietary unbundled network element is *necessary* for the purposes of Section 251(d)(2)(A) if requesting carriers do not have available, from the incumbent or others, a reasonable substitute for such proprietary element that enables an efficient competitor to provide a telecommunications service in an economically and functionally viable manner, taking into account the economic and functional characteristics of the proprietary element.

Requesting carriers' ability to offer a telecommunications service is *impaired* for the purposes of Section 251(d)(2)(B) if their inability to obtain a requested [proprietary]¹² unbundled network element

¹¹ "[T]he Commission [must] determine on a rational basis which network elements must be made available, taking into account the objectives of the Act and giving some substance to the 'necessary' and 'impair' requirements." Slip Op. at 24 (emphasis in original).

¹² See footnote 6 above.

materially reduces their ability to offer the service. For purposes of this rule, the ways in which requesting carriers' inability to obtain an element may materially reduce their ability to offer a service include, but are not limited to, effects on the quality (including functionality), scope, or timeliness with which the service could be offered and the costs required to offer the service using a substitute functionality.

Factors to be considered in determining whether access to a proprietary unbundled network element is necessary, or whether requesting carriers' ability to offer service is impaired, include, but are not limited to:

- (a) Availability of substitute capabilities from the incumbent or other sources;
- (b) Whether a substitute capability requires requesting carriers to incur higher deployment costs or lower economies of scale compared to those of the requested element;
- (c) Practical difficulties in obtaining business arrangements necessary to obtain any substitute capability within the timeframes and in the quantities required by requesting carriers;
- (d) Reduced potential for requesting carriers to serve an equally broad base of customers using the substitute;
- (e) Additional time necessary to deliver services in the marketplace that is related to the requirement to obtain and implement the substitute;
- (f) Inferior functionality or performance of, or support capabilities for, the substitute compared to the requested element; and
- (g) Diminished ability of requesting carriers to provide service in conformity with their legal and regulatory obligations.

Items (a) through (c), as well as other factors identified by commenting parties, may be used to determine whether a substitute functionality is practically available to requesting carriers. If it is determined that a substitute functionality

is practically available, items (d) through (g), as well as other factors identified by commenting parties, may be used to determine whether use of the substitute would adversely affect the ability of requesting carriers to provide a meaningfully competitive service.

V. The Proposed Limiting Principles Are Fully Consistent with the Purposes of the 1996 Act

As described below, each of the factors in the proposed limiting principles is important in analyzing whether a requested element is necessary or its absence would impair CLECs' ability to provide telecommunications services. Consideration of each of these factors is directly related to, and required to achieve, the pro-competitive goals of the 1996 Act.

(a) Availability of Substitutes

Unbundled network elements are defined in terms of their functionality.¹³ Thus, the availability of substitute functionality must be the first step in the Commission's Section 251(d)(2) analysis of any requested unbundled network element. If there is no alternative source of supply for the functionality such an element provides, and the element is used in the provision of a telecommunications service, then that element is obviously necessary for CLECs to compete, whether or not it is proprietary.

In contrast, the theoretical availability of a substitute does not demonstrate that the functionality of a

¹³ First Report and Order, ¶ 258; Slip Op. at 19-20.

requested element is unnecessary; nor does it show that the inability to obtain the element would not impair CLECs' ability to provide telecommunications services. This principle is critical to the development of effective local competition. As the Commission (id., ¶ 287) correctly found, any element could be provided by a new entrant "in theory," but Congress established unbundling requirements in the Act because it recognized that such duplication would in many instances "delay" or foreclose attempts to compete against the incumbents' ubiquitous local networks and the sunk costs they reflect.

Thus, the possible availability of a substitute for requested unbundled network elements merely begins, rather than ends, the Commission's inquiry under both the necessary and impair tests.

(b) Economic Considerations

The First Report and Order (¶ 285) recognized that economic considerations are critical to determinations under both the necessary and impair tests. Although the Supreme Court criticized the "any difference in cost" standard the Commission applied, the Court cast no doubt on the general proposition that cost differences should play an important role in the Commission's analysis. Thus, it is appropriate for the Commission to examine cost impacts in making its decisions under Section 251(d)(2).

Appreciable differences in actual deployment costs and current and prospective economies of scale can obviously have a significant impact on CLECs' decisions to enter and compete in the local services market. Indeed, the Commission recognized that the 1996 Act "mandat[es] that the most significant economic impediments to economic efficiency" must be removed. Accordingly, the First Report and Order (¶ 11) holds -- in a finding left undisturbed by the appellate courts -- that the competitive goals of the Act cannot be achieved unless incumbents share their , economies of density, connectivity, scope and scale with new entrants.

(c) Practical Constraints on Availability

The mere existence of a substitute capability also does not show that the Section 251(d)(2) standards cannot be met if, for example, practical difficulties involved in obtaining the substitute would impair CLECs' ability to provide service in a manner that is fully compatible with the ILEC. Thus, in considering whether a proposed substitute is in fact reasonably available to new entrants, the Commission should take account of any facts that show it may be materially more difficult for CLECs to obtain the substitute from a non-ILEC source than it would be to obtain the requested unbundled element from the ILEC. For example, it may take substantially longer to negotiate for or obtain

a substitute, or the potential source of supply may be insufficient or too unreliable to meet CLECs' needs.

Similarly, in determining whether a substitute is available from a non-ILEC source, the Commission should consider whether CLECs would need to establish multiple sources of supply, each potentially having different technical capabilities and quality, in order to serve the same geographic areas served by a single ILEC. It should also consider the commercial relationships that the CLEC would have to establish to obtain the substitute from another source, such as a CLEC. In particular, the Commission should consider the fact that CLECs typically deploy only the minimum amount of plant and equipment needed to support their own market entry plans. Thus, the feasibility of using CLECs as long-term sources of supply for other CLECs may be low.

(d) Reduced Addressable Market

The Act envisions that competition for local services will be broadly available and not limited to only those areas where CLECs could find alternative sources of supply. All consumers will not realize the benefits of the local competition Congress envisioned unless CLECs have access to network capabilities that provide them with the opportunity to offer services in product and service markets that are as extensive as those served by the ILEC.

If a proposed substitute does not offer CLECs the equivalent scope of opportunity, CLECs cannot compete on an even footing. For example, much of today's technology requires substantial volume to achieve operating economies. In many of the areas of the country where the incumbent is already operating, CLECs could not generate sufficient volumes to justify deploying their own assets. Thus, the Commission's requirement that ILEC monopolists must make their economies of density, scope and connectivity available to new entrants also supports the need to review information on this factor.

(e) Reduced Timeliness

Timeliness is a critical attribute that affects customers' perceptions of a carrier's ability to offer service. Moreover, prompt competitive entry is one of the central goals of the Act.¹⁴ CLECs' ability to compete will be significantly reduced if it takes them longer to introduce new services into an area than it takes the ILEC. Similarly, new entrants will not have a meaningful opportunity to compete if they cannot deliver existing services to individual customers as quickly as the ILEC. Therefore, a proposed substitute must enable CLECs to provide services (both new and existing) as quickly as they could if they used ILEC unbundled elements.

¹⁴ First Report and Order, ¶ 13.

(f) Reduced Quality

The First Report and Order (¶ 285) correctly recognizes that new entrants' ability to offer service would be impaired if their inability to use a requested element reduces the quality of the service they can offer. Indeed, the "equal quality of service" requirement is required by the Act's nondiscrimination principles and pervades the Commission's discussion in the First Report and Order, as well as subsequent decisions on related matters.¹⁵ The Supreme Court's decision does not question the importance of quality of service issues; rather, it merely objects to the "any difference" standard applied in the First Report and Order.¹⁶

Quality of service is determined by a variety of factors, each of which may be relevant in a particular case. At a minimum, however, the Commission should consider evidence that a proposed substitute does not enable new entrants to provide service that offers equal performance characteristics to the service that could be offered using a requested unbundled network element. Thus, for example, a substitute must provide CLECs with equivalent potential to meet necessary engineering parameters (e.g., loss, noise,

¹⁵ E.g., First Report and Order, ¶ 312.

¹⁶ Slip Op. at 24.

balance, dial tone delay, and blocking) and failure rates as the requested unbundled element.

Similarly, if a proposed substitute has more limited functionality than a requested network element, or if the operational or support capabilities available for the substitute are less robust than the support available through use of the requested unbundled element, a new entrant would not be able to offer a service of equivalent quality without access to the requested element.

(g) Ability to Offer Service in Compliance with Law

New entrants must be able to offer their services in a manner that complies with the legal obligations of all local exchange carriers. Accordingly, if using a proposed substitute would diminish requesting carriers' ability to provide service in conformity with these obligations, it cannot be considered a viable option.

VI. Recommended Modifications to Network Element Definitions

In addition to developing the principles that will be applied to the Section 251(d)(2) analysis, it is also appropriate for the Commission to review the definitions of the elements themselves. In general, we believe that Rule 319 established appropriate definitions of the unbundled network elements that new entrants need to provide voice services in competition with incumbents. We set forth below some proposed modifications based on our experience over the

last several years, and in anticipation of the need to assure a competitive marketplace for advanced telecommunications services.

Local Loop: Consistent with the comments we filed in CC Docket No. 98-147, we suggest that the Commission modify the definition of the local loop in the following respects:

- In order to enable new entrants to provide advanced services, the definition should be modified to state that a local loop includes non-discriminatory connection by the incumbent LEC of the loop to other ILEC network elements, or termination of the loop at a point where requesting telecommunications carriers can connect it to other ILEC network elements and/or to their own facilities or equipment in a manner that does not impair their ability to provide service.

This modification is necessary in order to resolve ongoing debates over whether the ILEC or the CLEC must provide the physical cross-connections and cabling between the ILEC's main distribution frame and a CLEC's collocation space. This language also clarifies that when the ILEC provides a combination consisting of the local loop and other unbundled elements to a requesting telecommunications carrier that the ILEC itself uses in similar configurations in its network, it is the ILEC that is responsible for connecting such elements, even if they are not currently connected to serve the specific retail customer utilizing

the loop.¹⁷ This clarification is essential to permit CLECs to use combinations efficiently.

- The Commission should clarify that, unless requesting telecommunications carriers specify otherwise, the loop consists of the transmission media and, where deployed, the associated transmission functionality including, but not limited to, coding and decoding, multiplexing and de-multiplexing, modulating and de-modulating and loss or gain insertion.

This modification is necessary so that CLECs are able to provide services of equivalent quality to the ILEC's services. This is especially important when a retail customer transfers service from the incumbent LEC to the new entrant and is readily able to detect any differences in service. Specifically, when an ILEC serves its own POTS customers via IDLC, CLECs must be assured that when they win a customer from the ILEC that the customer will not be moved to a loop that provides lower quality performance than the preexisting digital loop. In addition, after an ILEC deploys xDSL capabilities within its distribution plant, CLECs must be able, at their option, to choose between having access to the existing xDSL equipped loop or an xDSL capable loop. ILEC xDSL equipment is part of the UNE loop, and it is already established that ILECs must make loops available on a nondiscriminatory basis.¹⁸ Therefore, ILECs

¹⁷ See the discussion of element combinations below.

¹⁸ See In the Matter of Deployment of Advanced Telecommunications Capability (and consolidated petitions

cannot properly raise in this context any claims regarding alleged superior quality or combination of elements.

- The Commission should clarify that the incumbent LEC is obliged to provide a loop capable of supporting a variety of services (e.g., a continuous copper facility, free of load coils and bridge taps for advanced services), when requested by a new entrant. The Commission should further provide that when such facilities are not available as a result of (a) a lack of ILEC facilities or (b) the presence of incompatible intervening electronics, or (c) facilities are not practically available to a new entrant due to other constraints, including but not limited to the availability of collocation or the inadequate electrical characteristics of the loop, then the incumbent LEC must provide a loop that is equipped with all transmission equipment necessary to provide equivalent communications capabilities as the incumbent makes available over loops of equivalent length between a customer's premises and the traditional serving central office of that customer's premises. This obligation should apply regardless of whether the incumbent's offering is made as a retail service or an access service and regardless of whether the incumbent or an affiliate of the incumbent provides such service.

This modification is required to permit the rapid deployment of advanced services and to prevent the incumbent LEC or an affiliate from gaining unfair competitive advantages in deploying such services to the marketplace because of preferential access to monopoly loop plant and collocation space.

for relief under Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-147, Memorandum Opinion and Order and Notice of Proposed Rulemaking, released August 7, 1998 ("Section 706 Proceeding"), ¶ 57 ("Given our conclusion above that advanced services offered by incumbent LECs are telecommunications services, all equipment and facilities used in the provision of advanced services are 'network elements' as defined by section 153(29)").

- The Commission should provide that the loop includes all incumbent-owned facilities between the incumbent entrance facility at a premises and the customer's point of demarcation for inside wire, regardless of the physical location of the network interface device.

This clarification is needed to resolve disputes that have arisen with ILECs regarding CLECs' rights to access and use cabling within a customer premises that is owned by the incumbent. Access to such cable is essential to enable CLECs to efficiently connect the loop facility outside the customer's premises to the customer's inside wire.

Network Interface Device ("NID"): No significant changes are needed for this element. However, it is critical that new entrants who provide their own loops can obtain access to customers' inside wire, which typically terminates on the NID. Thus, the Commission should clarify that:

- New entrants are entitled to unrestricted access to the customer side of the NID, without charge from the ILEC.
- Where the point of demarcation between the ILEC's outside loop facility and the customer's inside wire is not a clearly identifiable physical device, new entrants may access any space and any facility reasonably accessible by the incumbent LEC for purposes of accessing and re-terminating the customer's inside wire.

Both of these clarifications are necessary to permit new entrants to connect the customer's inside wire to their own loop facilities. Neither, however, would involve the

CLEC's actual use of the ILEC's NID, or the connection of CLEC wiring at the NID.¹⁹ Rather, CLECs need access to the NID to be able to remove the customer's inside wire from the ILEC's NID and attach it to the CLEC's own device.

The Commission should also clarify the following:

- When the incumbent LEC provides the unbundled loop, the NID must be provisioned in an integrated manner with the loop, unless the requesting telecommunications carrier directs that the NID need not be provided by the incumbent LEC.

The NID and the loop are connected elsewhere in the incumbent LEC network as a routine matter. There is no reasonable rationale that supports a requirement that the NID must be touched when a CLEC obtains a NID and loop in combination. This would needlessly increase the CLEC's costs with no benefit to the customer.

Local Switching Capability and Tandem Switching

Capability: The Rule 319 definitions are generally sufficient to provide new entrants with access to the capabilities they need to provide voice services. However, we recommend that the following point be clarified, particularly to assure that new entrants will be able to obtain data switching capabilities from incumbents:

- The Commission should clarify that the terms in definitions apply both to voice and data switching configurations.

¹⁹ See First Report and Order, ¶ 394.

Interoffice Transmission Facilities: This definition, when read in light of the Commission's decision on shared transport in the Third Order on Reconsideration, generally provides new entrants access to the facilities they need. It would be helpful, however, if the definition were modified in one respect.

- The Commission should provide that dedicated transmission facilities may be connected to other network elements and that the connection of such network elements need not occur within collocation space of the requesting telecommunications carrier.

This modification is appropriate because new entrants have demonstrated needs to connect multiplexed or non-multiplexed dedicated transport to loop facilities (e.g., to extend loops to alternative switching locations) and to connect local or tandem switching elements to dedicated transport (e.g., to provide access to self-provided Operator Services or Directory Assistance). Such combinations are common within the existing incumbent LEC's network. If CLECs were limited to the use of collocation to make such connections (as some ILECs have suggested) such a requirement would discriminate against CLECs, needlessly consume scarce collocation space, and add to the CLECs' costs and time to deliver service.

Signaling Networks and Call Related Databases: We do not believe any changes are necessary to the Commission's definition of signaling networks. Although Rule 319

requires ILECs to permit access to its call-related databases "including but not limited to" certain enumerated databases, we recommend that the Commission specifically reference the Customer Name database. This database is necessary to be able to identify the name of a calling party for a subscriber that purchases Caller ID. CLECs cannot provide a comparable service offering without access to such information.

Operations Support Systems: No changes are necessary to the Rule 319 definition. However, it is critical that incumbents provide adequate information on the performance of their OSS to assure that new entrants are receiving nondiscriminatory access to unbundled network elements, resale services and interconnection, as required by section 251(c).

Operator Services and Directory Assistance Unlike the definitions of the other unbundled elements, the Rule 319 definition of this element contains no detail. We suggest that these matters be addressed by adding the following:

- When a requesting telecommunications carrier purchases unbundled local switching capability from an incumbent LEC, the incumbent LEC shall provide, at the option of the requesting carrier, access to the incumbent LEC's OS and DA functionality in the same manner in which the incumbent LEC obtains such access itself.

This language is parallel to the wording of other portions of Section 319 and is necessary to assure that new entrants receive nondiscriminatory treatment.

- When requesting telecommunications carriers purchase unbundled local switching from an incumbent LEC and elect to provide either OS or DA functionalities, or both, through their own capabilities, requesting carriers may, at their option, receive calls from their subscribers through the use of either direct or tandem trunking arrangements where the latter are technically feasible.

This modification is necessary to enable new entrants to use the most efficient trunking arrangements to provide services.

- The incumbent LEC shall provide requesting telecommunications carriers with a mutually agreeable initial electronic batch transfer of its directory assistance listing data, and periodic electronic batch updates of such information, in a manner that will enable new entrants to provide DA services of equivalent quality to the ILEC's service through the use of their own equipment.

This clarification is necessary because some ILECs have refused to provide new entrants with the information they need to provide DA through the use of their own facilities.

Combinations of Unbundled Elements²⁰ The Supreme Court's decision (Slip Op. at 26) reinstates Rule 315(b), which is essential for CLECs to obtain combinations of

²⁰ As with our discussion of the application of the recommended limiting principles to individual elements, we do not provide here an exhaustive analysis of issues relating to element combinations. We will address such issues in more detail, including the need for additional combinations and additional elements, in our comments on remand.

unbundled elements in an efficient manner. In order to fully address the goals of the Act, we believe that the proper interpretation of this rule is that an incumbent is required to make available to CLECs any combination of elements that it uses to provide service to its own customers. Thus, for example, an incumbent should not be permitted to argue that it need not perform the work necessary to connect a loop and a switch port (or other sets of elements) in a manner similar to the way it connects those same elements (or functionalities) for itself and its own customers. At a minimum, however, the Commission must reinforce its decision that CLECs are permitted to use any technically feasible method for combining elements, and may not be forced to use collocation or other inefficient combination methods required by the incumbent.²¹

To the extent the Commission's rules permit an incumbent to decline to provide contiguous network elements that ordinarily work together in a combined fashion, the Commission must assure that CLECs have appropriate opportunities to create such combinations. In order to support the CLECs' right to do so, the Commission should

²¹ Memorandum Opinion and Order, Application of BellSouth Corp., BellSouth Telecommunications, inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana, CC Docket 98-121 (October 13, 1998), ¶¶ 168-170.

clarify that incumbents must permit CLECs to use electronic means (such as recent change and digital cross-connect mapping) similar to the electronic methods incumbents use to combine elements for themselves, without any obligation for CLECs to pass the elements or associated wiring through a collocation or similar manual arrangement. Similarly, as the Eighth Circuit held, CLECs must be given an opportunity to enter ILEC premises to perform the work needed to combine elements.²² To the extent that CLECs are required to perform such work because the ILEC declines to do it, incumbents should not be permitted to assess any charges against CLECs associated with such access, or to unreasonably restrict access by CLEC-designated technicians.²³

VII. Application of the Limiting Principles to the Requested Network Elements

As noted in Part I above, most of the elements identified in Rule 319 are also specifically referenced in Section 271 as requirements for BOCs that seek to provide interLATA services. See Section 271(c)(2)(B) (specifically requiring the provision of local loops, local switching,

²² Iowa Utilities Board v. FCC, 120 F.3d at 813.

²³ It would not be unreasonable, however, for incumbents to require that CLEC personnel (or contractors) who access their facilities are appropriately trained to perform such work, provided that the training criteria are implemented in a nondiscriminatory manner for all carriers, including the ILEC itself.

local transport, signaling and databases, and operator services and directory assistance). This is a significant, if not dispositive, indication that Congress intended that at least those specific elements should be unbundled.

In addition, we offer below a brief overview of how the limiting principles described above can be applied to all seven of the unbundled network elements that were defined in Rule 319.²⁴ We believe that the Commission will have no difficulty supporting each of those elements described above under the limiting principles we propose, which are rooted in the Act. Therefore, the Commission should readopt Rule 319 with the modifications suggested above.

Local Loop

The incumbents' local loop plant is their quintessential monopoly asset. It is also one of the principal sources of the incumbents' enormous economies of scale and connectivity. Further, the incumbents' near-total control over local loops was obtained at the expense of "captive ratepayers, under regulatory protection from competition and/or inherent economic conditions that

²⁴ We do not attempt here to provide an exhaustive analysis of these elements in light of the proposed limiting principles. Rather, this discussion is illustrative of how such an analysis can be approached. We will, of course, present the Commission with a full analysis in our comments on the remand proceeding.

conferred a de facto monopoly and ensured recovery of costs, however slowly.”²⁵

New entrants’ costs to replicate an incumbent’s loop plant would be staggering, especially since they cannot hope to attain the incumbents’ economies of scale. Thus, there is no practical substitute for CLEC access to incumbents’ loop facilities.²⁶ Moreover, if new entrants were denied access to incumbents’ loops, consumers would simply be unable to receive the benefits of widespread local competition. Accordingly, lack of access to local loops would materially impair CLECs’ ability to offer telecommunications services in the manner contemplated by the Act.²⁷

Network Interface Device

The NID is an elementary cross-connect device used to connect a customer’s inside wire to the incumbent’s loop and to provide appropriate electrical safeguards.²⁸ Thus, the NID is essential to create connectivity between the customer’s CPE and a carrier’s network. When a CLEC

²⁵ Report, Section 706 Proceeding (February 2, 1999), ¶ 45.

²⁶ Loop elements generally raise no proprietary issues. See First Report and Order, ¶ 388.

²⁷ The Commission has repeatedly reaffirmed that local loops include loops with xDSL capability. See Notice of Inquiry, Section 706 Proceeding, ¶ 3.

²⁸ NIDs involve no proprietary issues.

purchases the unbundled loop from the incumbent, there is no economically practical substitute available.²⁹ And as noted above, when a CLEC is providing its own loop it must also have access to the NID so that it can establish connectivity with the customer's inside wire, which typically terminates on the NID. Thus, denial of access to the NID would materially impair CLECs' ability to provide telecommunications services.

Switching Capability

Local Switching

In their comments in the initial Local Competition proceeding, virtually all of the ILECs acknowledged that local switching could and should be unbundled.³⁰ This is undoubtedly correct.

Even though it may be possible for larger CLECs to obtain their own switches, the simple fact is that those switches are not located in the same place where customers' loops terminate. Thus, CLECs that deploy their own switches must incur the costs and delays necessary to obtain

²⁹ In such circumstance CLECs invariably purchase use of the NID for use with the loop; thus, in such cases, it could be treated as a part of the loop element, or as an available option for the loop.

³⁰ See First Report and Order, ¶ 398-99 (specifically referencing comments of Ameritech, Bell Atlantic, BellSouth, Cincinnati Bell, GTE, NYNEX and USTA). Some ILECs objected to the inclusion of vertical features in the switching element, but the Supreme Court (Slip Op. at 19-20) put such unwarranted claims to rest.

collocation in the incumbents' central offices as well as transport facilities between the collocation spaces and their own central offices.³¹ These differences, combined with their associated economic effects, may alone deter many prospective carriers from entering the local market.³²

Equally important is the fact that every customer served through a collocation arrangement must have his service transferred to the CLEC through the use of manual "hot cuts" that are themselves time-consuming, costly and require that the customer be out of service during the transfer. Critically, hot cuts are also severely limited in quantity compared to incumbents' ability to transfer long distance customers. Moreover, CLECs' experience with initial limited quantities of UNE-loop orders shows that they have often been prone to error. These differences directly affect the cost, timeliness and quality of the service a CLEC can offer to its local service customers.

In order for widespread local competition to occur, CLECs must be able to move customers from the ILEC to their

³¹ See First Report and Order, ¶ 411 (noting that it may take up to two years for a CLEC to purchase and install a switch and that such investment may be uneconomic for CLECs with a small customer base).

³² It should also be noted that collocation space has already become a scarce commodity in many ILEC central offices and is likely to be subject to even greater demand once the advanced services market begins to grow.

own services quickly and without noticeable disruption. The above differences in cost, timeliness and quality make broad scale competition impossible, especially in the residential consumer market. In contrast, incumbents who are permitted to enter the interLATA market will be able to capture and convert tens of thousands of customers each day to their long distance services using longstanding, fully automated, and practically error-free processes. Thus, lack of the opportunity to access the incumbents' unbundled local switching element would significantly impair CLECs' ability to bring effective and widespread competition to consumers.

Tandem Switching

Incumbents use tandem switching to improve their efficiency while maintaining their quality of service, especially low blockage levels. If new entrants were denied unbundled access to incumbents' tandem switching, they would lose the opportunity for equivalent efficiencies and could also suffer significantly higher blocking rates.³³

Tandem switching is especially critical in providing "transit" functionality to interconnect traffic between LECs in the early stages of local competition, when CLEC volumes will be insufficient to justify direct physical interconnection. In order for facilities-based new entrants

³³ No parties made proprietary claims regarding tandem switching. First Report and Order, ¶ 425.

to use non-ILEC tandem switching, they would have to provision direct trunk groups from the new tandem switch to most CLEC local switches serving the area for the exchange of traffic with other CLEC customers. This could take a significant amount of time to implement, and it would require CLECs to incur substantial uneconomic construction or facility lease costs, because their traffic volumes will generate much lower utilization factors for those facilities than incumbents experience on their own facilities. Further, the high unit costs of tandem switching and associated transport would discourage widespread competition, because CLECs could not justify the costs of such facilities.

For non-facilities based CLECs who use the unbundled local switching element the problem becomes worse. These CLECs would be required to build dedicated trunk groups from every end office in which they wanted to serve customers to the new tandem. This will also involve delay and cost, and it will also raise the potential for routing problems, because it will require reprogramming of the routing tables in all affected local switches.

CLEC blockage rates will also likely increase, leading to consumer dissatisfaction. Unless CLECs deliberately overengineer the trunking for their tandems (and thus incur significant uneconomic cost), their blocking rates will be

higher than the ILECs' for comparable services, because they do not have either the ILECs' efficiencies of large trunk groups or access to the ILEC's historical network usage data, which allow the incumbents to engineer their networks efficiently and with low blockage rates.³⁴ Thus, lack of access to ILEC tandem switching will impair CLECs' ability to offer service.

Interoffice Transport Facilities

Dedicated Transport

The vast majority of parties that commented on the dedicated transport element in response to the Commission's original notice -- including USTA and most RBOCs -- supported the Commission's proposal to treat dedicated transport as an unbundled element. First Report and Order, ¶ 429.³⁵ Moreover, the Commission has already found that giving CLECs the opportunity to purchase unbundled transport "will decrease the cost of entry compared to the much higher cost that would be incurred by an entrant that had to construct all of its own facilities [and that a]n efficient entrant might not be able to compete if it were required to

³⁴ The Commission has already recognized the importance of such factors in its analysis of shared transport. See the discussion of shared transport below.

³⁵ The Commission also noted (id.) that Section 271 "requires BOCs to unbundle transport facilities prior to entering the in-region, interLATA market" and that transport facilities raise no proprietary issues. Id., ¶ 446.

build interoffice facilities where it would be more efficient to use the incumbent LEC's facilities." Id., ¶ 441 (emphasis added).³⁶ This is just the type of analysis required by the Supreme Court's decision.

In addition, the Commission (id.) has also already considered the fact that there are "alternative suppliers of interoffice facilities in some areas," but concluded that "Congress intended for competitors to have these options available."

These findings are clearly correct. If CLECs are denied the opportunity to obtain dedicated transport from incumbents, they will not only face the higher unit costs and reduced efficiencies identified in the First Report and Order, they will also have to incur collocation delays and costs before they can even use alternative transport facilities. Moreover, ILECs will likely experience additional efficiencies as a result of their need for widespread access to rights of way that may be more difficult (and time consuming) for CLECs to obtain. Thus, failure to obtain access to ILEC dedicated transport will significantly impair CLECs' ability to compete.

Shared Transport

³⁶ See also id., ¶ 447 (noting that access to interoffice facilities "will improve [CLECs'] ability to design efficient network architecture").

The Commission's prior decision that shared transport must be made available as a network element rests on particularly strong footing. The Commission's most extended treatment of the subject appeared in the Third Reconsideration Order.³⁷ There, the Commission assembled a record that not only included the comments filed in response to the initial Notice of Proposed Rulemaking in CC Docket No. 96-98, but also numerous and extensive ex parte presentations and responses to petitions for reconsideration. On the basis of that expanded record, the Commission made factual findings that readily support the unbundling of shared transport under the Section 251(d)(2) analysis required by the Supreme Court.

The Commission began its Section 251(d)(2) analysis by noting that the parties had not contended that shared transport is proprietary, and that there is "no basis" for such a finding. Third Reconsideration Order, ¶ 33. Accordingly, the only possible question under Section 251(d)(2) is whether failure to provide shared transport as a network element would impair CLECs' ability to provide telecommunications services.

³⁷ See Third Order on Reconsideration and Further Notice of Proposed Rulemaking, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 12 FCC Rcd. 12460 (1997) ("Third Reconsideration Order").

The Commission's analysis leaves no doubt that CLECs' ability to provide service would be actually "impaired" in the sense the Supreme Court described if incumbents were not required to provide access to shared transport. The Commission not only found that lack of such access would raise CLECs' costs, but it also found that the lack of this important element would raise CLECs' costs so "significantly" that it would "reduce competitive entry into the local exchange market." Id., ¶ 34 (emphasis added). Indeed, reiterating its findings from the First Report and Order, the Commission reaffirmed that "an efficient new entrant" could be "[un]able to compete" if access to shared transport were not required. Id. (citing First Report and Order, ¶ 441).

The Commission further explained some of the reasons for its conclusions. In particular, it found that failure to require access to shared transport "would create a significant barrier to entry," because the claimed alternative, dedicated transport, "is not economically feasible" at the "low penetration rates" that entering CLECs will initially experience. Id., ¶ 35. Thus, the Commission concluded that unbundled access to shared transport as a network element was necessary to enable new entrants to obtain the "significant economies of scope, scale, and density in providing transport facilities" that are already

enjoyed by the incumbent LECs with whom they must compete. Id. The Commission noted that its holding would be subject to reexamination if and when CLECs' customer bases grow in the future. Id. at ¶ 35 & n.95. But at the level of customer acquisition that was then (and now) occurring in the local services market, it had no doubt that denying CLECs access to shared transport would significantly discourage and limit competitive entry. This, in turn, provided ample basis for its conclusion that CLECs would be "impaired" in their ability to provide services if shared transport were not available. Id. ¶¶ 34-35.

These findings are unimpeachable. Dedicated transport requires a very high volume of traffic to be economic, and CLECs entering the market would face prohibitive unit costs per customer if they were only able to purchase dedicated transport. Lack of access to shared transport would also deny CLECs the benefits of the incumbents' dynamic routing capabilities, which permit them to reroute calls among multiple alternative facilities to take advantage of planned engineering efficiencies, or to deal with unexpected congestion in their network. This is a significant economy of scale that substantially improves the reliability and quality of their services.

Further, the Commission (id., ¶ 35) noted that if CLECs were forced to purchase dedicated transport exclusively,

they would be required to specify in advance precisely what paths their customers' calls will travel and their volume of traffic between each end office, and they would have to buy capacity along particular routes that match those specifications -- an impossible task among tens of thousands of end offices. No new carrier could do that on any significant scale. Indeed, the incumbents can make such projections only because they have large customer bases, vast historical usage information, and multiple facilities over which to route calls. This is precisely the kind of barrier to entry that made competition impossible before the Act, and that the Act was designed to eliminate.

Finally, there is no dispute that the Commission's findings are correct. Although numerous incumbents challenged the Third Reconsideration Order before the Eighth Circuit on other grounds -- and simultaneously challenged the Commission's application of Section 251(d)(2) in the First Report and Order in the Iowa Utilities Board litigation-- none challenged these factual findings on shared transport.³⁸ Thus, the Commission already has an extensive factual record that supports the requirement that shared transport must be offered as an unbundled element.

Signaling Networks and Databases

³⁸ See Southwestern Bell v. FCC, 153 F.3d 597, 604 (8th Cir. 1998) ("petitioners do not argue that the FCC failed to give

Signaling Networks

Signaling networks are essential elements of modern telecommunications networks that are used to control the call processing flow of many different types of calls.³⁹ When a new entrant purchases the local switching element from the incumbent, it has no option but to obtain signaling from the ILEC, because ILEC switches are interconnected with their own signaling networks and cannot interoperate with multiple signaling networks. Thus, CLECs could not use a substitute signaling capability under such circumstances, even if they wanted to. Accordingly, CLEC access to signaling networks is required for the development of local competition.

Databases

Call related databases are SS7 databases that are used for billing and collection, or in the transmission, routing or other transmission of a telecommunications service. First Report and Order, n.1126. The Commission has found that access to these databases "is critical to entry in the local exchange market." Id., ¶ 484.

adequate consideration to either one" of the Section 251(d)(2) factors).

³⁹ First Report and Order, ¶482. Signaling protocols for the SS7 signaling network are not proprietary and generally adhere to industry standards rather than ILEC-specific protocols. Id., ¶ 481.

Access to such databases is especially critical for CLECs that purchase unbundled switching from the ILEC. As with the ILEC signaling networks, ILEC switches are programmed to interoperate only with the ILEC's SS7 databases. Thus, in such cases, CLECs simply have no alternative for the ILEC's databases.

Operations Support System Functions

The Commission's prior findings with respect to OSS also compel the conclusion that OSS satisfies the revised Section 251(d)(2) standards. Indeed, the Supreme Court itself, citing the Commission's discussion of OSS, noted that portions of the First Report and Order "suggest[] that the Commission's action might be supported by a higher [Section 251(d)(2)] standard" than that which the Commission had seemingly employed. See Slip Op. at 24 (citing First Report and Order, ¶¶ 520-521).

First, there is no argument that CLECs have any substitute for access to incumbent LECs' OSS capabilities. The Commission has repeatedly made clear that access to OSS is required not simply, or even primarily, because it is less costly than any supposed alternatives. Rather, access to incumbents' OSS is required because it is "vital to creating opportunities for meaningful competition." First

Report and Order, ¶ 518.⁴⁰ Indeed, the critical need for access to OSS is underscored by the Commission's conclusion that, even if OSS were not a network element, such access would be still be necessary -- and thus legally required -- in order for new entrants to obtain nondiscriminatory access to other network elements. See First Report and Order, ¶ 517.

The Commission has identified numerous reasons why access to OSS is "essential to the ability of competitors to provide services in a fully competitive local service market." Id., ¶ 521. For example, it found that "much of the information maintained by these systems" -- such as "available telephone numbers, service interval information, and maintenance histories" and "the facilities and services assigned to a particular customer" -- "is critical to the ability of other carriers to compete." The Supreme Court agreed. See Slip Op. at 19 (OSS "contains essential network information").

⁴⁰ See also id., ¶ 520 (it is "absolutely necessary for competitive carriers to have access to operations support systems functions in order to successfully enter the local service market"); Memorandum Opinion and Order, Application by BellSouth Corporation, et al. Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Louisiana, 13 FCC Rcd. 6245, 6257-6258 (1998) ("competing carriers' entry into the local market depends upon the incumbent LEC's willingness and ability to make its OSS available in a nondiscriminatory manner") (emphasis added).

The Commission also found that without nondiscriminatory access to such information -- and to the other functions that OSS performs -- at the same level of quality as the incumbent, CLECs' ability to attract customers will be substantially impaired. In particular, it found that

"if competing carriers are unable to perform the functions of pre-ordering, ordering, provisioning, maintenance and repair, and billing for network elements and resale services in substantially the same time and manner that an incumbent can for itself, competing carriers will be severely disadvantaged, if not precluded altogether, from fairly competing." First Report and Order, ¶ 518.

The Commission also recognized that access to OSS is "integral" because "[n]ew entrants must be able to provide service to their customers at a quality level that matches the service provided by the incumbent LEC to compete effectively in the local exchange market." See Memorandum Opinion and Order, Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana, 13 FCC Rcd.20599, 20653 (1998) ("Louisiana II Decision"). These findings satisfy any conceivable standard under Section 251(d)(2), were abundantly supported on the record, and have never been challenged.⁴¹

⁴¹ The only claim the LECs made on appeal with respect to OSS was that they fell outside the statutory definition of

Operator Services and Directory Assistance

Operator and Directory Assistance Services

Compared with other ILEC network elements, CLECs have greater opportunity to establish, themselves or by contract, work centers for providing operator and/or directory assistance services. The establishment of Operator/DA Service work centers, however, is only one of two essential components necessary for CLECs to create a viable service capability for their retail customers when they use the ILEC's local switching element. CLECs must also have access to economic routing arrangements that enable them to direct their customers' operator/DA service calls from every ILEC end office to their operator/DA work centers.

In order for CLECs to be competitive, they must have access to routing capabilities that are as efficient and reliable as the ILECs'. Because incumbents have largely elected to use only the line class code capabilities of the switch for selective routing of a CLEC's operator/DA calls, CLECs that want to use alternate operator/DA centers must install direct trunks to each ILEC local switch where they have customers. This, in turn, means that all of the impracticalities and inefficiencies of direct trunking described in our discussion of dedicated transport and

"network element" -- a claim that the Commission, the Eighth Circuit, and now the Supreme Court have all decisively rejected. See Slip Op. at 19-20.

tandem switching apply equally in this context. These problems present significant practical barriers for CLECs that impair new entrants' ability to replicate either the Operator Services or the Directory Assistance functionality when they use an ILEC's local switching element.

Directory Assistance Data

Directory Assistance is a fundamental service capability that must be offered by any local service provider. Customers expect such support to be readily available and that the listings they receive are accurate. Thus, the availability of accurate and timely directory listing information is a key issue for any new entrant seeking to compete with an incumbent.

No party has as timely, accurate and complete information on directory listings as incumbents.⁴² Although a facilities-based new entrant may possess accurate information relating to its own retail customers, this represents only a tiny portion of the total customer base within a local serving area. In order for a CLEC to establish a reliable DA service, it must have access to the same information on published telephone numbers, with the

⁴² Incumbents begin from the advantageous position of serving the vast majority of customers through their historical monopoly and also having access to the directory listings of all competitors who place their customers' listings in the incumbent's white pages. See also Memorandum Opinion and Order, Petitions For Forbearance From The Application Of Section 272 Of The Communications Act Of 1934, As Amended, To Certain Activities, CC Docket No. 96-149, DA 98-220 (February 6, 1998), ¶¶ 76, 82, 96 (finding no reasonable substitute for ILEC reverse directory listings).

same reliability, as the data in the ILECs' Directory Assistance databases.⁴³

The Commission's Second Report and Order⁴⁴ addresses many of these issues. First, that order (¶ 144) recognizes that "[i]t is not possible to achieve seamless and nondiscriminatory access to directory assistance without requiring access to the underlying databases." Second, it (¶ 141) requires all LECs "to share subscriber listing information with their competitors, in 'readily accessible' tape or electronic formats, and that such data be provided in a timely fashion upon request." Despite these clear obligations, some ILECs have refused to make their DA database information available in batch format, to provide initial master files with timely (daily) updates of changes, to provide the files at incremental cost, and/or have attempted to place unreasonable limits on the use of such data (e.g., limiting use only to local calling rather than

⁴³ Although access to a published telephone number may be prohibited in some cases due to privacy issues, access to the customer's status as a non-published account is essential for the CLECs to enable their DA operators to supply a comparable level of service. With this status indicator, CLEC DA operators can relay that the telephone number is unpublished, rather than saying that the requested telephone number cannot be found.

⁴⁴ Second Report and Order and Memorandum Opinion and Order, In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-96 ("Second Report and Order") (August 8, 1996).

long distance calling). These have the predictable effect of impairing CLECs' ability to offer reliable DA services. Thus, the Commission should reconfirm that CLECs may have access to batch Directory Assistance data as an unbundled network element for use in any directory assistance service.

Summary and Conclusion

The Commission's duties on remand are straightforward. Nothing in the Supreme Court's decision requires a change in the Commission's earlier view that a minimum set of unbundled network elements should be established on a nationwide basis. Moreover, the Commission is fully empowered to support each of the network elements identified above under Section 251(d)(2). We have shown above, and will demonstrate in more detail in response to the Commission's forthcoming notice, that each of the elements we request fully meets the statutory requirements at this time.

Changes in technology may make it appropriate to revisit some of these issues in the future, to determine whether it is no longer necessary for CLECs to have access to a particular element at that time. But that is a debate for another day. The Commission must make its initial decisions based on the world of today -- a world in which CLECs are still waiting for a reasonable opportunity to compete against ILECs that are reluctant to make their

monopoly assets, economies and capabilities available to new competitors in accord with the Act. As the Commission has already correctly found, the development of meaningful competition requires incumbents to make at least the currently identified list of network elements available. Without this minimum set of elements, there will be no hope that a competitive local marketplace will develop as quickly or broadly as envisioned by the Congress in the 1996 Act and the Commission in its First Report and Order.